



**Purpose:** It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

**Course Title** - Solid Modeling/Design

**Course Prefix and Number** – DFTG 2440

**Department** - Engineering Design

**Division** - Technology/Business

**Course Type:** (check one)

- Academic General Education Course (from ACGM – but not in WCJC Core)
- Academic WCJC Core Course
- WECM course (This course is a Special Topics or Unique Needs Course: Y  or N )

**Semester Credit Hours # : Lecture Hours # : Lab/Other Hours #** 4:3:3

**Equated Pay hours for course** -  $3 + (3 \cdot .5) = 4.5$

**Course Catalog Description** - A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work.

List Lab/ Other Hours
Lab Hours 3
Clinical Hours
Practicum Hours
Other (list)

**Prerequisites/Co-requisites** – DFTG 1405 & DFTG 1409

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**Date** 06/17/13

**Reviewed by Department Head** Jo Ann Shimek

**Date** 06/17/13

**Accuracy verified by Division Chair** David Kucera

**Date** 09/18/13

**Approved by Dean or Vice President of Instruction** Amy LaPan

**Date** 1/22/2014



**I. Topical Outline** – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non-lecture instruction):

- An overview of the software interface
- 3D coordinates
- 3D View Control
- Sketches
- 3D Modeling Tools
- Annotating & Dimensioning
- Assemblies

**II. Course Learning Outcomes**

<b>Learning Outcomes</b>	<b>Methods of Assessment</b>
<p><b>Upon successful completion of this course, students will:</b></p> <p>Create three-dimensional solid model objects; and generate pictorial and orthographic drawings.</p>	<p>Daily Drawings/Lab Work/Daily Quizzes            Four to Five Major Exams or Drawings            Class Discussion/Participation            Final Project</p> <p>(All drawings evaluated in terms of accuracy of drawing views, use of line types, line quality, dimensioning accuracy and placement and drawing organization.)</p>

**III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.**

A textbook, such as Autodesk Inventor 2012 Essentials Plus by Daniel T. Banach et al.

A flash drive is required for archiving data files

Note book to store notes and drawings.

**IV. Suggested Course Maximum - 20**

**V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.**

Computer work stations, plotters/printers, data projection system and appropriate software

**VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course**

Daily Drawings/Lab Work/Daily Quizzes - 20%

Four to Five Major Exams or Drawings - 40%

Class Discussion/Participation - 10%

Final Project - 30%

Final Project requires research into varied topics with team participation to produce drawings and documents on the individual team's topic. Emphasis is placed on individuals ability to work within a group.

Based on the above breakdown, grades will be awarded as perscribed by Wharton County Junior College Standards.

90% to 100% = A

80% to 89% = B

70% to 79% = C

60% to 69% = D

Below 60% = F

**VII. Curriculum Checklist**

- **Academic General Education Course** (from ACGM – but not in WCJC Core)  
No additional documentation needed

- **Academic WCJC Core Course**  
Attach the Core Curriculum Checklist, including the following:

- Basic Intellectual Competencies
- Perspectives
- Exemplary Educational Objectives

- **WECM Courses**  
If needed, revise the Program SCANS Matrix & Competencies Checklist.